



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,226	11/26/2001	Koji Matsumoto	1405.66007	8670

7590

09/27/2004

Patrick G. Burns
GREER, BURNS & CRAIN, LTD.
Suite 2500
300 South Wacker Dr.
Chicago, IL 60606

EXAMINER

DINH, TAN X

ART UNIT	PAPER NUMBER
----------	--------------

2653

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/994,226	Applicant(s) MATSUMOTO, KOJI	
	Examiner TAN X. DINH	Art Unit 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

- 1) The amendment filed 8/17/2004 is acknowledged.
- 2) Due to discover of new prior art, the indication of allowable of claims 1-9 in previously Office action is withdrawn herein. The following is a new ground of the rejection.
- 3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 4) Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over YUSU et al (6,296,915).

YUSU et al discloses an optical recording medium as claimed in claims 1 and 2, comprises a heat radiation film formed between a substrate and recording layer includes a plurality of alloy films having different thermal conductivities (Fig.1C, substrate 1, heat-radiation films 2a,2b and 2c and recording layer 3. See also column 8, line 28-52. In this case, the multiple heat-radiation films having different thermal conductivities as high/high/low or high/low/high, etc.,), except that the optical recording medium is phase-change type rather than magneto-optical (the recording layer of phase-change type formed by phase-change material and the recording layer of magneto-optical formed by

magnetic material). Examiner take Official Notice the fact that magneto-optical recording medium is known in the recording art to be equivalent to phase-change type recording medium for storing information data. To substitute magneto-optical recording medium in YUSU et al for the disclosed phase-change type recording medium would have been an obvious functional equivalent.

Method claim 9 is drawn to the method of using the corresponding apparatus claimed in claims 1 and 2. Therefore, method claim 9 is rejected for the same reasons of anticipation (obviousness) as used above.

As to claim 3, YUSU et al suggests for using different thickness of the multiple heat-radiation films in column 7, lines 36-45 (it is noted that, larger in thickness will provide higher thermal conductivity. See also column 8, line 28-52 for the multiple heat-radiation films having different thermal conductivities as high/high/low or high/low/high, which suggests they could be different in thickness).

As to claim 4, YUSU et al shows first heat-radiation film is an alloy containing Al or Ag as main component (column 7, lines 1-31).

As to claim 5, YUSU et al shows first heat-radiation film is an alloy containing a predetermined amount of Cr, Si or Ti (column 7, lines 1-31).

As to claim 6, it would have been obvious to use Ni as main component in YUSU et al's second heat-radiation film since it is

well known in the art that alloy layer contains Ni would provide low thermal conductivity.

As to claim 7, YUSU et al shows second heat-radiation film is an alloy containing a predetermined amount of P or Al (column 7, lines 1-31).

As to claim 8, the etching technique for forming any flat surfaces in optical recording are widely used in the art.

5) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (See form PTO-892 attached herein).

Applicant is reminded that in amending in response to a rejection of claims (if the rejection involves with any applicable arts), the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must also show how the amendments avoid such references and objections. See 37 CFR §1.111(c).

6) Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAN X. DINH whose telephone number is (703) 308-4859. The examiner can normally be reached on Monday - Friday, 8:00AM - 5:30PM.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the

Art Unit: 2653

receptionist whose telephone number is (703)305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



TAN DINH
PRIMARY EXAMINER

September 23, 2004